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# EXHIBIT 14

88-0000  
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May 29, 1986

TO: Mr. R. J. Landry  
FROM: S. D. Curran  
SUBJECT: Exxon Underground Tank Leak Experience

This is in response to the subject data request as back up for Mr. Meyer's API - Committee on Public Issues meeting.

Following is recent data on EUSA Marketing tank leak experience derived from field investigation reports:

<u>Year</u>	<u>Number of Exxon Owned Tanks</u>	<u>Number of Tank Leaks</u>	<u>% Leaks</u>
1982	28,500	730	2.6
1983	26,300	540	2.1
1984	24,300	235	1.0
1985	22,000	239	1.1

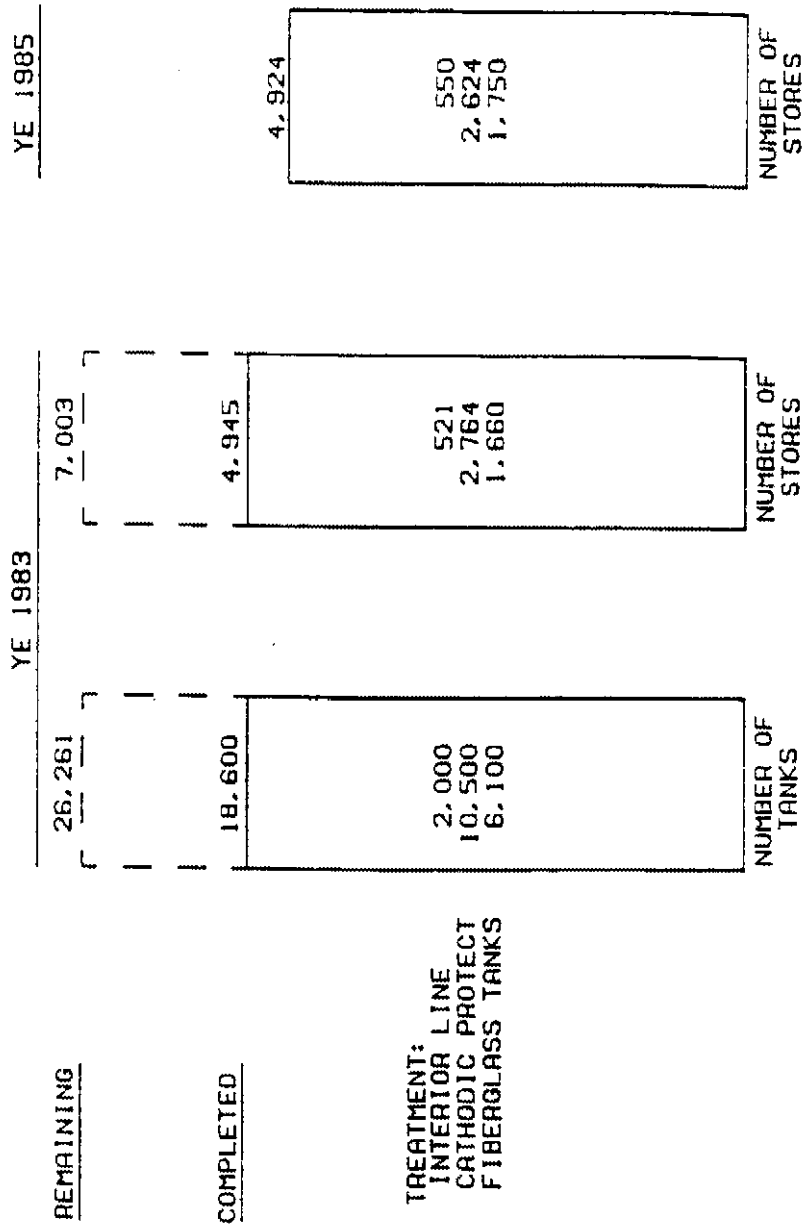
Additional data was added to the leak classification matrix in 1986. Only those systems where both a tank system was tested not to be tight and an actual unauthorized discharge occurred are listed as leaks. As a result, where previous data included tank tightness failures that did not result in a discharge (e.g. vent line vapor leaks), excavation or observation well investigation results are now listed when the suspected unauthorized discharge actually occurred. Data to date indicates a tank leak rate of 0.7% may be expected in 1986.



SDC:alj  
8952c

cc: A. L. Decker  
R. R. Eaton  
W. E. Gattis  
W. B. Matney  
M. E. Rollins

# UNDERGROUND TANK PROGRAM TANK UPGRADING STATUS

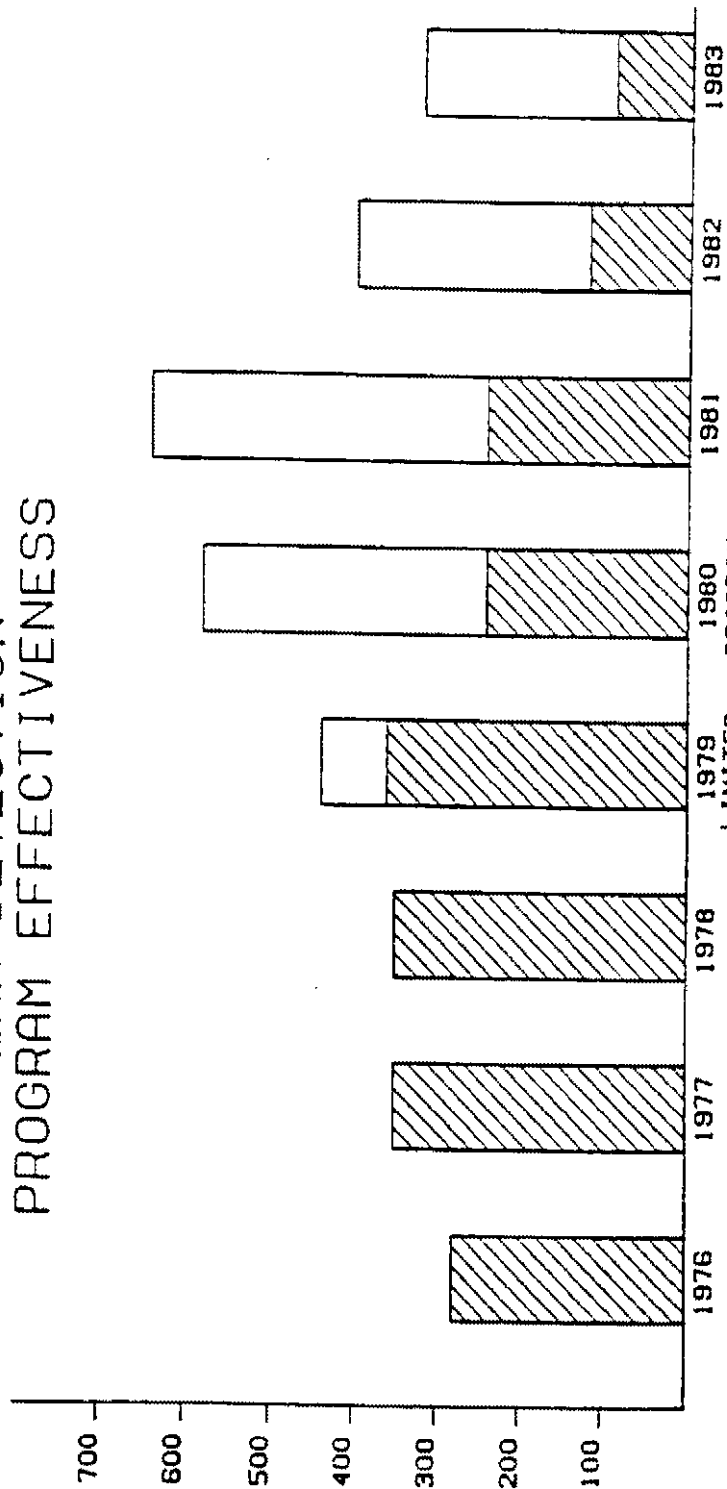


TREATMENT:  
INTERIOR LINE  
CATHODIC PROTECT  
FIBERGLASS TANKS

PROGRAM COSTS: THRU 1983= \$102 MILLION  
THRU 1985= \$172 MILLION

# LEAK DETECTION PROGRAM EFFECTIVENESS

NUMBER OF SERVICE STATION LEAKS DETECTED



YEAR END

PROGRAM DETECTED  
INCIPIENT LEAKS

LEAKS REPORTED  
BY OTHERS

EUSA MARKETING  
Underground Storage Tank Systems  
Leak Experience

Year	Number of Exxon-Owned Tanks			Percentage of Leaks	
	Two-Point Average	Tested for Leaks	Tank Leaks	To Total	To Tanks Tested
1982	31,200	NA	730	2.3	NA
1983	27,400	NA	540	2.0	NA
1984	25,300	891	235	0.9	26
1985	23,100	948	240	1.0	25

Exxon's leak detection program relies mainly on mandatory daily, weekly, and monthly operator inventory reconciliation for early leak detection. Tank testing is triggered whenever the variation exceeds one-half of one percent of the thruput per month. In addition, product inventory verification over a test period--usually one month--is required to be performed annually by the operator and company representative. Monitoring wells to detect leaks through drawoff of samples have been installed at most stations constructed over the last few years, and at some older facilities in high-risk locations. When unexplained inventory variations are reported or detected through these methods, Exxon does a hydrostatic tank tightness test that will detect leaks as small as .05 gallons per hour. Finally, leaks may be discovered in pipes that are under pressure by line leak detectors which continuously monitor line pressure.

In addition to tank testing because of suspected leaks, Exxon also tests tanks for other reasons; e.g., local ordinances, planned acquisitions, or as part of the surplussing program. In 1985, the leak rate for tanks tested for suspected leaks was 44% and for those tested for other reasons, 13%.

There is no standard definition of an underground storage tank system leak. Prior to 1986, Exxon classified as a leaker any tank that failed the tank tightness test. Beginning in 1986, tanks were classified as leakers only if a product leak--as opposed to an air or vapor line leak--was subsequently verified. Early 1986 data indicate a tank leak rate of 0.7%.

PJL:slw:kc  
6/86

LCBE 42 0478

EXXON UNDERGROUND TANK TIGHTNESS  
TESTING EXPERIENCE

1985

<u>Reason for Tightness Test</u>	<u>Number</u>		<u>% Failure</u>
	<u>Tested</u>	<u>Failed</u>	
Suspected Leaks (e.g., inventory control variations, line leak detectors, other)	376	164	44
Other Programs (e.g., surplusings, acquisitions, local regulations, other)	<u>572</u>	<u>76</u>	<u>13</u>
Total	948	240	25

PJL:kc  
6/6/86

LCBE 42 0479

Exxon Underground Tank Tightness Tests

1985

Reason for Tightness Test	Number		Percent Failed
	Tested	Failed	
Suspected Leaks (dealer complaint, inventory reconciliation, etc.) <i>water in tank, visible product</i>	320	124	38.8
Annual Inventory Verification <i>slow pumping, summer, late Oct. etc.</i>	56	40	71.4
Planned Divestiture	269 <sup>376</sup>	48 <sup>164</sup>	17.8
Planned Acquisitions	92	0	0.0
Tank Upgrading Program (for tanks slated for cathodic protection)	126	23	18.3
Requirement of Local Regulation	62	5	8.1
Other Reasons	23	0	0.0
Total	<u>948</u>	<u>240</u>	<u>25.3</u>

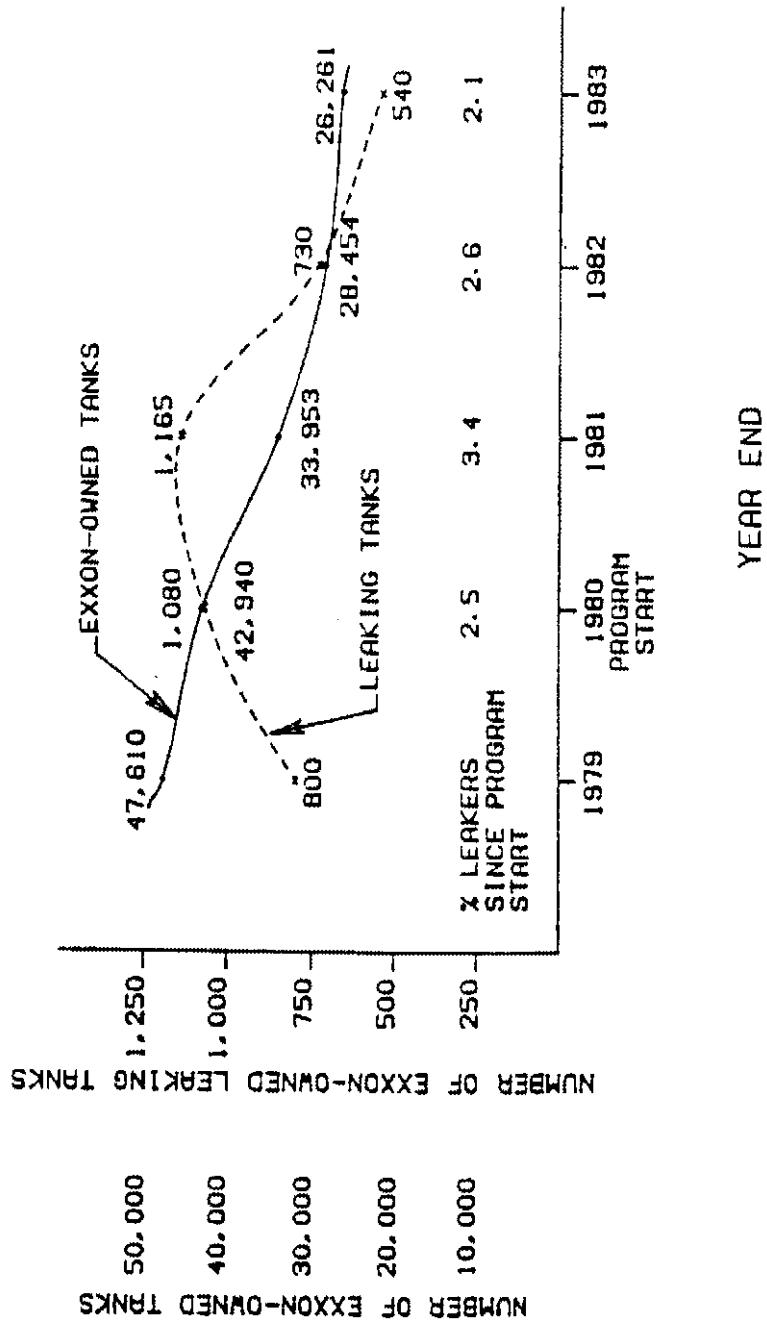
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9-100

240  
164  
76

948  
376  
572

PJL:kc  
6/4/86

# UNDERGROUND TANK LEAKER EXPERIENCE 1979 - 1983





EXXON UNDERGROUND TANK TIGHTNESS  
TESTING EXPERIENCE

1985

<u>Reason for Tightness Test</u>	<u>Number</u>		<u>% Failure</u>
	<u>Tested</u>	<u>Failed</u>	
Suspected Leaks (e.g. inventory control variations, line leak detectors, other)	376	164	44
Other Programs (e.g. surplussing, acquisitions, local regulations, other)	572	76	13
Total	948	240	25

2520d

LCBE 42 0482

EUSA MARKETING  
Underground Storage Tank Systems  
Leak Experience

656-5987

Year	Number of Exxon-Owned Tanks			Percentage of Leaks		
	Total	Tested for Leaks	Tank Leaks	To Total	To Tanks Tested	
	32,953	31,200				
1982	28,500	27,400	NA	730	2.6	2.3
1983	26,300	25,300	NA	540	2.1	2.0
1984	24,300	23,100	891	235	1.0	0.9
1985	22,000		948	240	1.1	1.0
						26.1
						25.1

Exxon's leak detection program relies mainly on mandatory daily, weekly, and monthly operator inventory reconciliation for early leak detection. Tank testing is triggered whenever the variation exceeds one-half of one percent of the thruput per month. In addition, product inventory verification over a test period--usually one month--is required to be performed annually by the operator and company representative. Monitoring wells to detect leaks through drawoff of samples have been installed at most stations constructed over the last few years, and at some older facilities in high-risk locations. When unexplained inventory variations are reported or detected through these methods, Exxon does a hydrostatic tank tightness test that will detect leaks as small as .05 gallons per hour. Finally, leaks may be discovered in pipes that are under pressure by line leak detectors which continuously monitor line pressure.

In addition to tank testing because of suspected leaks, Exxon also tests tanks for other reasons; e.g., local ordinances and planned acquisitions or *as part of the surplus program* divestiture. In 1985, the leak rate for tanks tested for suspected leaks was 44% and for those tested for other reasons, 13%.

There is no standard definition of an underground storage tank system leak. Prior to 1986, Exxon classified as a leaker any tank that failed the tank tightness test. Beginning in 1986, tanks were classified as leakers only if in addition to failing the tightness test, a leak was subsequently verified that resulted in a significant discharge, and was not attributable to other factors such as the vent line or loose fittings. Data to date indicates a tank leak rate of 0.7% in 1985. *discharge from the tank* *there is*

PJL:slw:kc

May 29, 1986

TO: Mr. R. J. Landry  
FROM: S. D. Curran  
SUBJECT: Exxon Underground Tank Leak Experience

This is in response to the subject data request as back up for Mr. Meyer's API - Committee on Public Issues meeting.

Following is recent data on EUSA Marketing tank leak experience derived from field investigation reports:

Year	# Stations	Number of Exxon Owned Tanks	Number of Tank Leaks	% Leaks
1979		47,610	820	
1980		42,740		
1981		33,453	1,280	3.8
1982		28,500	730	2.6
1983		26,300	540	2.1
1984	6,312 (4.1%)	24,300	235	1.0
1985	5,196 (2.1%)	22,000	239	1.1
1986	4,506 (2.0%)	18,745	130	0.7

Additional data was added to the leak classification matrix in 1986. Only those systems where both a tank system was tested not to be tight and an actual unauthorized discharge occurred are listed as leaks. As a result, where previous data included tank tightness failures that did not result in a discharge (e.g. vent line vapor leaks), excavation or observation well investigation results are now listed when the suspected unauthorized discharge actually occurred. Data to date indicates a tank leak rate of 0.7% may be expected in 1986.

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API RECOMMENDED PRACTICE FOR UNDERGROUND  
PETROLEUM PRODUCT STORAGE SYSTEMS  
AT MARKETING AND DISTRIBUTION FACILITIES

Foreword

The prevention and detection of product leakage from petroleum storage and dispensing systems is important to both industry and the public. This recommended practice is offered as a guide for voluntary use by architects, engineers, marketers, jobbers and contractors in the design, use and maintenance of such systems.

Federal, state and municipal codes or laws may have specific restrictions or requirements which must be taken into account prior to the installation of the underground tanks and piping.

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